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NOTICE OF ALLOWANCE AND FEE(S) DUE

83634 7590 06/11/2009

AT & T- Legal Department - Brendzel
ATTN: Patent Docketing
Rm 2A-207
Bedminster, NJ 07921

EXAMINER

ABDIN, SHAHEDA A

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 06/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,696

03/11/2004

Thomas S. Afferton

AFFERTON 2003-0075

6182

TITLE OF INVENTION: NETWORK WITH OPTICAL BANDWIDTH ON DEMAND

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	09/11/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

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B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

83634 7590 06/11/2009

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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,696 03/11/2004 Thomas S. Afferton AFFERTON 2003-0075 6182

TITLE OF INVENTION: NETWORK WITH OPTICAL BANDWIDTH ON DEMAND

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$0 \$0 \$1510 09/11/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
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ABDIN, SHAHEDA A 2629 398-045000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

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Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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ATTN: Patent Docketing
Rm 2A-207
Bedminster, NJ 07921

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 517 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 517 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/798,696	AFFERTON ET AL.	
	Examiner	Art Unit	
	SHAHEDA A. ABDIN	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/08/2009.
2. ☒ The allowed claim(s) is/are 48-67.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>06/05/2009</u> . 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other ____. |
|--|---|

Shaheda A Abdin
Examiner
Art Unit: 2629

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Henry T. Brendzel on 06/05/2009.

(1) Note that antecedent basis error with minor informalities in claim 48 has been corrected by the Examiner's proposed amendment. Claim 48 is hereby corrected as shown below.

Claim 48

A network arrangement comprising nodes and optical links interconnecting the nodes, characterized in that at least one node comprises:

a transceiver pool that includes

a plurality of transceiver modules, each having a port A and a port B,

a plurality of distinct optical connection points for coupling to customer equipment (Cs-CPs), each connected to said port A of one of said transceiver modules, and

a plurality of distinct connection points (OD-CPs), each connected to said port B of one of said transceiver modules;

with each transceiver module interconnected between one of said CS-CPs and one of said OD-CPs, and each transceiver module of said plurality of transceiver modules configured to modulate information provided by a customer to its CS-CP onto an optical carrier of a wavelength specified by a control signal, and to apply the modulated optical carrier to its OD-CP; and to demodulate an optical signal received from its OD-CP, to derive therefrom information that was modulated on an optical carrier signal of said specified wavelength, and to deliver the demodulated information to its CS-CP; and

an optical director element that includes a plurality of local connection points that are each coupled to a different one of said OD-CPs, and at least two long-haul optical connection points, each connected to a fiber of a different one of said links and configured to accept an information signal as well as to deliver an information signal, where optical signals flowing through said local connection points and through said long-haul connection points are routed within said optical director solely in optical form, under control of an applied electrical control signal.

(2) In claim 52, line 1, replace -- 8 -- with "48";

(3) In claim 54, line 1, replace --1-- with "48".

Allowable Subject Matter

2. Claims 48-67 are allowed.
3. The following is an Examiner's statement of reasons for allowance:

Regarding independent claim 48:

The closest prior art of record Shutter (US Patent No: 5760934) teaches a transceiver pool (NE1) that includes a plurality of transceiver modules (i.e. RN and EN), each having a port A and a port B (i.e. incoming ports and outgoing ports),

a plurality of distinct optical connection points (i.e. 14N and 11N) for coupling to customer equipment, each connected to said port A of one of said transceiver modules, and a plurality of distinct connection points (i.e. X4N and 11N), each connected to said port B of one of said transceiver modules, and an optical director element (MO1) but Sutter does not teach or suggest that **with each transceiver module interconnected between one of customer equipment (CS-CPs) and one of optical connection point (OD-CPs), and each transceiver module of said plurality of transceiver modules configured to modulate information provided by a customer to its CS-CP onto an optical carrier of a wavelength specified by a control signal, and to apply the modulated optical carrier to its OD-CP; and to demodulate an optical signal received from its OD-CP, to derive therefrom information that was modulated on an optical carrier signal of said specified wavelength, and to deliver the**

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demodulated information to it its CS-CP; and an optical director element that includes a plurality of local connection points that are each coupled to a different one of said OD-CPs, and at least two long-haul optical connection points, each connected to a fiber of a different one of said links and configured to accept an information signal as well as to deliver an information signal, where optical signals flowing through said local connection points and through said long-haul connection points are routed within said optical director solely in optical form, under control of an applied electrical control signal.

Closest prior art of record Way et al. (US Pub NO:20060275034 A9) discloses a network arrangement (10, Fig. 1a) comprising nodes and optical links (14,16) interconnecting the nodes (network nodes 18), characterized in that at least one node (26) comprises.

a transceiver pool (transponder, 20) , that includes at least one transceiver, at least one customer-side CS (client side service, 24) connection point , and at least one optical director-side ODS (line side transmitter, 22) connection point where the transceiver pool is adapted to couple said at least one CS connection point to said at least one ODS connection point ([0047], lines 2-10, and fig. 1a); and an optical director element (coupler pair, 36) adapted to communicate information via essentially all-optical paths (fiber16), said director having a number of ports (first and second input ports, 46 and 48 and first output port 50, here input port is greater then the output port) [0051] , but Way does not teach or suggest “**with each transceiver module interconnected between one of customer equipment (CS-CPs) and one of optical**

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connection point (OD-CPs), and each transceiver module of said plurality of transceiver modules configured to modulate information provided by a customer to its CS-CP onto an optical carrier of a wavelength specified by a control signal, and to apply the modulated optical carrier to its OD-CP; and to demodulate an optical signal received from its OD-CP, to derive therefrom information that was modulated on an optical carrier signal of said specified wavelength, and to deliver the demodulated information to its CS-CP; and an optical director element that includes a plurality of local connection points that are each coupled to a different one of said OD-CPs, and at least two long-haul optical connection points, each connected to a fiber of a different one of said links and configured to accept an information signal as well as to deliver an information signal, where optical signals flowing through said local connection points and through said long-haul connection points are routed within said optical director solely in optical form, under control of an applied electrical control signal”.

Regarding independent claim 61:

Closest prior art of record Shutter and Way do not teach or suggest

“provisioning a tunable transceiver of said node to communicate substantially all of the information of an applied signal of a customer to a local connection point that is coupled to a controllable optical director of said node, where the communicated information is modulated onto a wavelength specified by a control signal applied to said tunable transceiver, an optical signal that carries data

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modulated onto a carrier at said wavelength and which arrives at said local connection point from said optical director is demodulated and provided to said customer, and control signal is other than indicative of a failure condition; and provisioning said controllable optical director to transfer bi-directional optical signals at said local connection point that have said specified wavelength to one of at least two long-haul ports of said optical director that is specified by a control signal applied to said optical director, where each of said long-haul ports is configured to carry signals from a different link of said links to said optical director, and from said optical director to said respective different link, said transfer being via essentially all-optical communication paths within said first controllable optical director”.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Inquiry

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Shaheda Abdin whose telephone number is (571) 270-1673.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard HJerpe could be reached at (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pari-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shaheda Abdin

06/08/2009

/Richard Hjerpe/

Supervisory Patent Examiner, Art Unit 2629

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